

REMARKS:

To expedite prosecution of this application, Applicant amends independent claims 1 and 10. Applicant also adds new independent claim 19. Support for these amendments can be found throughout the specification and drawings. For example, “regular expression matching” is described at page 4, lines 12-16; page 19, line 5; and page 20, line 13 through page 22, line 5 of the present application, while “unstructured content” is described at page 3, lines 7-10; page 5, lines 10-12; page 9, line 15; page 15, lines 23-27; page 16, lines 9-12; page 18, line 14 through page 19, line 6; and page 32, line 1 through page 34, line 6.

For purposes of appeal, Applicant incorporates all remarks from the previous response (filed April 25, 2006) by reference and for clarity does not restate those arguments in this response. The remarks below are supplemental to those presented in the previous response, and are provided to address new claim language or issues presented for the first time in the Office Action dated August 7, 2006.

Claims 1, 2-10 and 14-19 are pending in the application. Reexamination and reconsideration of the application, as amended, are respectfully requested.

Rejection Under 35 U.S.C. 101

Applicant submits that the claims recite a practical application which provides a tangible result. For example, claim 1 recites “extracting said specific content from said web page using regular expression matching to extract the specific content from the web page; and rendering said specific content on a display of mobile device.” Similarly, claim 10 recites “using regular expression matching to extract said first content from said web page if said first content is said desired content,” and subsequently “rendering said second content on a display of mobile device if said first content is said desired content.” The extraction of specific content from unstructured content displayed in a web page, and rendering that specific content on a display of a mobile device is a useful concrete and tangible result which can solve issues such as those discussed, for example, at page 1, line 14 through page 2, line 20 of the present Application.

Accordingly, Applicant respectfully requests that the rejection under 35 U.S.C. 101 be withdrawn.

Art-based Rejections

Claim 1

The Official Action maintains the rejection of claims 1-4 and 6-9 under 35 U.S.C. 102 (e) as being anticipated by Chau et al. (US 6,721,727) (hereinafter the “Chau reference”).

Applicant respectfully traverses these rejections for at least the following reasons.

Claim 1 relates to a computer-based method for repurposing specific content from a web page comprising unstructured content. Claim 1 requires the steps of:

creating a set of selection envelopes, wherein each selection envelope is associated with at least one selection command for locating a particular portion of said content within said web page, wherein each selection command is a function configured to locate the particular portion of said content to be enclosed by a corresponding selection envelope, wherein each successive selection command narrows said content to be enclosed by a corresponding selection envelope corresponding to the selection command;

applying each selection command and its corresponding selection envelope to said content until said specific content from said web page is enclosed in a particular one of the selection envelopes;

extracting said specific content from said web page using regular expression matching to extract the specific content from the web page; and

rendering said specific content on a display of mobile device. (Emphasis added.)

The Chau Reference

The Chau reference relates to a technique for creating metadata for fast search of XML documents stored as column data. Specifically, as discussed in the Abstract of the Chau reference, data is stored in a data store connected to a computer. A main table is created in a relational database management system, wherein the main table has a column for storing an extensible markup language (XML) document in a native XML format. One or more side tables are created in the relational database management system, wherein each side table has one or more columns that store one or more attributes extracted from the XML document for fast searching of the XML document. Thereafter, the side tables are used to locate data in the main table. (Abstract of the Chau reference; Emphasis added.)

Applicant acknowledges that the Chau reference discloses using the data type of an element or attribute to extract XML attribute values. The Chau reference also discusses using information in side table columns to locate information in an XML document. The Chau reference also discloses a technique for updating an entire XML document by replacing XML

column data; the UDF Update () function allows a user to specify a location path and the value of the element or attribute represented by the location path to be replaced.

Applicant notes, however, that the XML documents referred to in the Chau reference are structured documents. The Chau reference extracts information from a structured XML source document, converts it to a relational table, and stores the extracted information in a database of XML data. The Chau reference uses Xpath repeatedly to convert several XML documents into information that can be stored in the database, so that one can mine information at a later time. In other words, the Chau reference uses the rigid XPath on a DOM object to extract XML tags, and then creates a database from the extracted XML data so that faster SQL commands can then be used to extract data. However, XPath does not work on ill-formatted HTML pages - which are common in the Internet. As such, the Chau reference is applicable only to structured XML documents.

By contrast, the claimed method automatically extracts content from web pages to help enable multi-modality. For instance, if a user wants to login to their bank web page using a mobile telephone (or other wireless communication device) so that they can retrieve account information on the mobile phone (or other wireless communication device), the mobile phone would not be capable of rendering content included as part of the regular web page. The claimed method helps address this problem. Moreover, the claimed method can be applied to any content (structured or unstructured including natural text) provided on the web page.

The Chau reference does not relate to the field of repurposing web page content, and fails to disclose the concept of extracting specific content from a web page. For example, the Chau reference does not even relate to extracting content from a web page. Moreover, the Chau reference does not relate to extracting unstructured content, such as that included in a web page. Rather, the techniques in Chau are only applicable to structured XML documents.

In addition, Applicant submits that the Chau reference does not teach or even remotely hint at the concept of “rendering said specific content on a display of mobile device,” as recited in amended claim 1.

Applicant submits that the Chau reference also does not teach, for example, “using regular expression matching to extract the specific content from the web page,” as recited in amended claim 1. Even assuming for sake of argument that the XML documents in Chau were

equivalent to a web page, there is no indication in the Chau reference that “regular expression matching” is used to extract information from those XML documents, as recited in amended claim 1. The claimed method uses a scripting language referred to as regular expression matching (Regex) to automate the extraction of specific content from the web page. This way the extracted content can be re-rendered and displayed on the mobile phone. On the other hand, the Chau reference does not even remotely hint at this concept. Rather, the Chau reference uses the rigid XPath on a DOM object to extract XML tags.

Accordingly, for at least the foregoing reasons, Applicant submits that claim 1, and its dependent claims 2-4 and 6-9, are patentable over the Chau reference. In addition, Applicant submits that many of the dependent claims are separately patentable since the Chau reference fails to teach recitations present in those claims.

Claim 10

The Official Action rejects claims 10 and 14-18 under 35 U.S.C. 103 (a) as being unpatentable over Chau et al. (US 6,721,727) (hereinafter the “Chau reference”).

Applicant respectfully traverses these rejections for at least the following reasons.

Claim 10 relates to a computer-based method for repurposing desired content from a web page comprising unstructured content. Claim 10 requires the steps of:

- parameterizing a plurality of selection commands to operate on said web page, wherein each selection command is a function configured to locate a particular portion of content within said web page to be enclosed by a corresponding selection envelope, wherein each successive selection command narrows the particular portion of said web page to be enclosed by the selection envelope corresponding to the selection command;

- defining a parent selection envelope corresponding to a first selection command for locating a first content within said web page;

- using the first selection command associated with the parent selection envelope to select the first content from said web page;

- determining whether said first content is said desired content;

- using regular expression matching to extract said first content from said web page if said first content is said desired content;

- rendering said second content on a display of mobile device if said first content is said desired content;

- defining a child selection envelope corresponding to a second selection command for locating second content within said web page if said first content is not said desired content;

- using the second selection command associated with said child selection envelope to select the second content from said web page;

determining whether the second content is said desired content;
using regular expression matching to extract the second content from said web page if the second content is said desired content; and
rendering said second content on the display of mobile device if the second content is said desired content. (Emphasis added.)

For at least the same reasons discussed above with respect to claim 1, Applicant submits that the Chau reference also fails to teach, for example, “using regular expression matching to extract said first content from said web page if said first content is said desired content,” or “rendering said second content on a display of mobile device if said first content is said desired content,” as recited in the method of claim 10.

Accordingly, for at least the foregoing reasons, Applicant submits that claim 10, and its dependent claims 14-18, are patentable over the Chau reference. In addition, Applicant submits that many of the dependent claims are separately patentable since the Chau reference fails to teach recitations present in those claims.

New Claim 19

New claim 19 relates to a computer-based method for use with a web page comprising unstructured content. Claim 19 recites:

using regular expression matching to extract specific unstructured content from a web page; and
rendering the specific unstructured content that is extracted from the webpage on a display of a mobile device. (Emphasis added.)

Applicant respectfully submits that the cited references fail to teach or suggest either of the steps recited in claim 19.

For at least the reasons noted above, Applicant submits that all of the pending claims are allowable and such allowance is respectfully requested. Should the Examiner have any questions or wish to further discuss this application, Applicant requests that the Examiner contact the undersigned attorney at (480) 385-5060.

If for some reason Applicant has not requested a sufficient extension and/or has not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

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Dated: November 13, 2006

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